

Application No.: 10/723,622

APR 26 2007 Docket No.: SIW-072

AMENDMENTS TO THE CLAIMS

1. (currently amended) A start-up method for a fuel cell system that includes a fuel cell that carries out power generation by the electrochemical reaction between a fuel gas and the oxygen gas in the air; a fuel gas discharge path and a fuel gas supply path that are connected to the fuel cell; a fuel gas circulation path that connects the fuel gas discharge path to the fuel gas supply path; and a purge valve provided on the fuel gas circulation path in order to discharge the circulating fuel gas from the fuel gas circulation path, the method comprising the steps of:

supplying the fuel gas to the fuel cell and opening the purge valve so that the nitrogen gas that originates in the air and is present in the fuel gas circulation path is replaced by the fuel gas; and

closing the purge valve after the nitrogen gas in the fuel gas circulation path has been replaced by the fuel gas;

wherein the timing of the closing of the purge valve is determined depending on the duration of the fuel cell stoppage.

2. (canceled)

3. (currently amended) A start-up method for a fuel cell system according to claim 1[[ 2]], wherein the duration of the fuel cell stoppage is estimated based on the temperature of the fuel cell.

4. (currently amended) A start-up method for a fuel cell according to claim 1[[ 2]], wherein the duration of the fuel cell stoppage is estimated based on the voltage of the fuel cell.

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5. (original) A start-up method of a fuel cell system according to claim 1, wherein the timing of the closing of the purge valve is determined depending on the concentration of the fuel gas included in the discharge gas from the fuel gas circulation path.

6 – 18. (canceled)